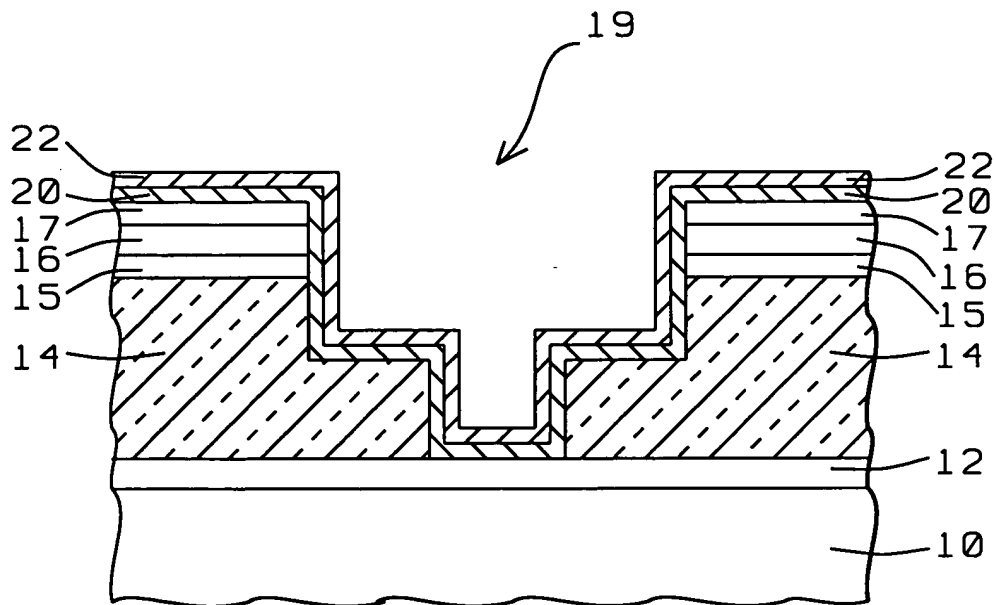
*FIG. 1**FIG. 2*

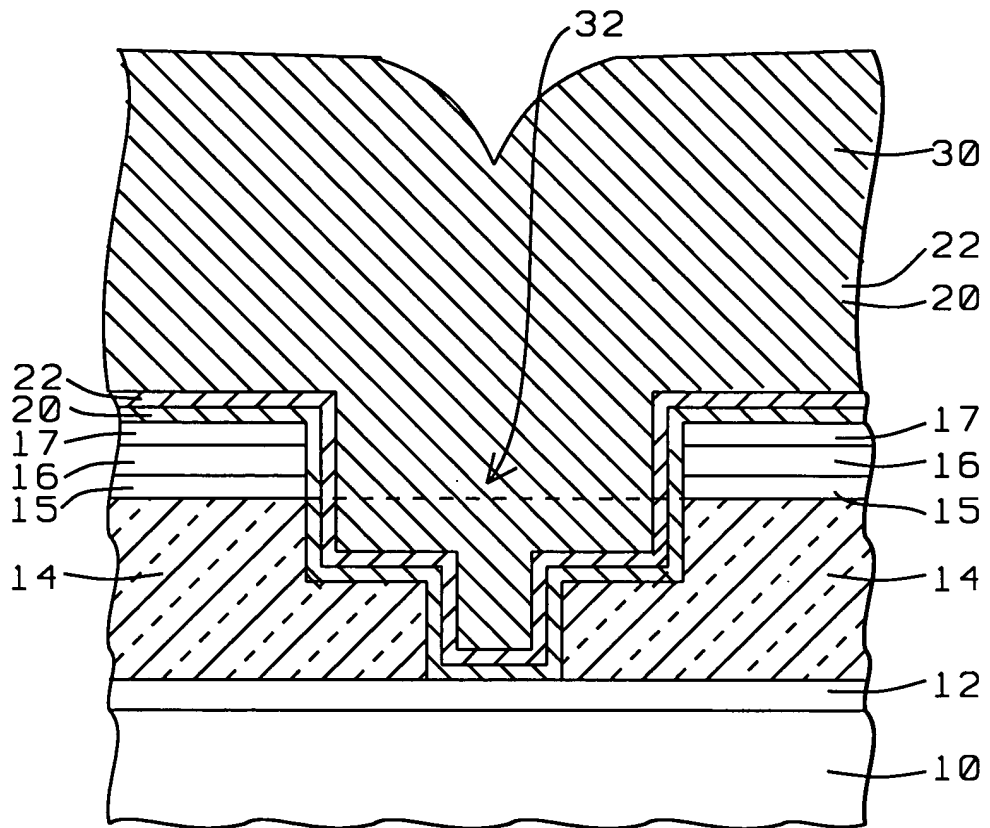


FIG. 3

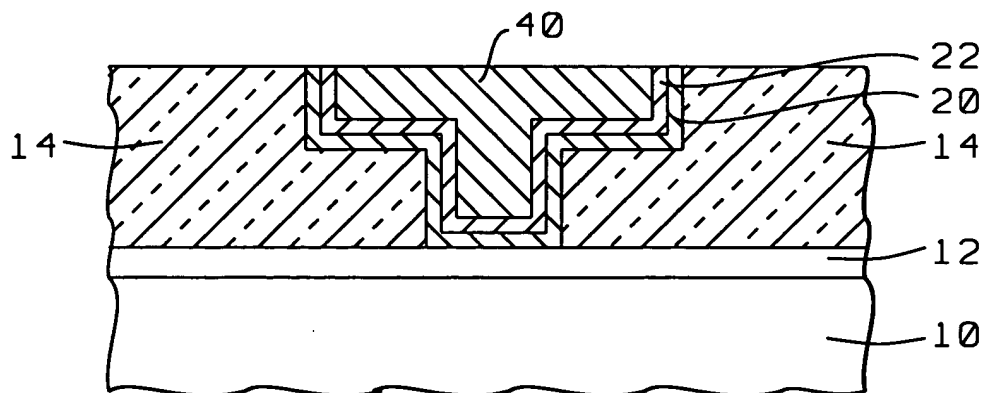
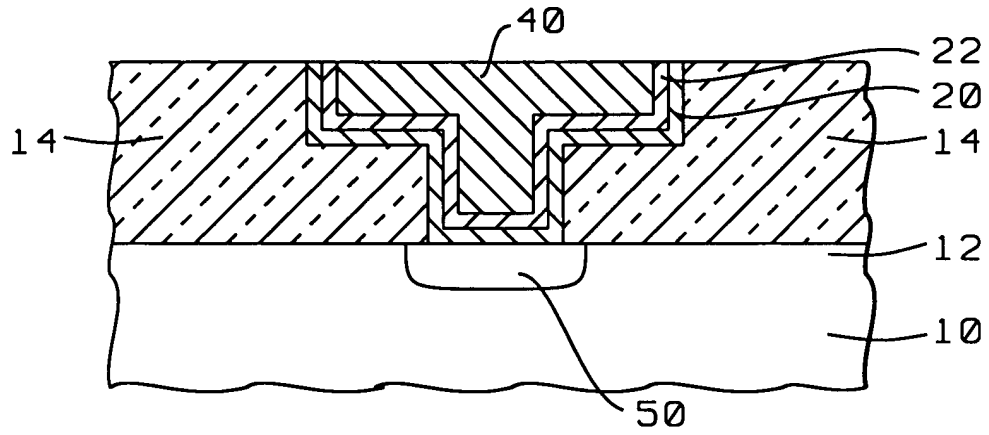
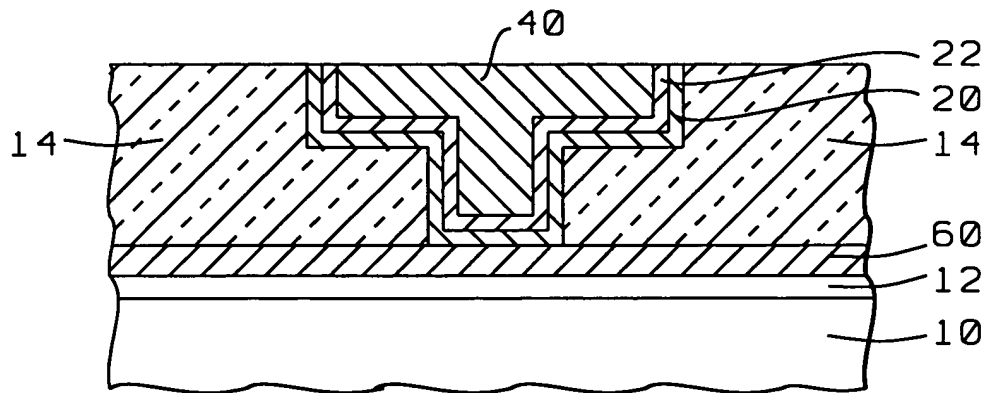


FIG. 4

*FIG. 5**FIG. 6*

COMPARISON OF SOFT AND HARD INTERFACE LAYER FOR low-k DAMASCENE Cu CMP			
DAMASCENE FILM STACK	DISH/ RANGE(A )	EROSION/ RANGE(A )	COMMENT
SILK 5KA/PEOX 1KA/SiON 600A	311/199	499/321	low k + SOFT FILM+DARC
SILK 5KA/PE-TEOS 1KA/SiON 600A	211/232	236/343	low k + SOFT FILM+DARC
SILK 5KA/SIN 1KA/SiON 600A	749/591	645/543	low k + HARD FILM+DARC
SILK 5KA/PEOX 500A+SIN500A/SiON 600A	659/588	595/424	low k + SOFT&HARD FILM+DARC
SILK 5KA/SIN500A+PEOX 500A/SiON 600A	681/594	587/478	low k + HARD&SOFT FILM+DARC

FIG. 7

COMPARISON OF SOFT AND HARD INTERFACE LAYER FOR low-k DAMASCENE Cu CMP		
DAMASCENE FILM STACK	Cu LINE DAMAGE/DEFECT	COMMENT
SILK 5KA/PEOX 1KA/SiON 600A	SOME DEFECT SPOTS	low k + SOFT FILM+DARC
SILK 5KA/PE-TEOS 1KA/SiON 600A	SOME DEFECT SPOTS	low k + SOFT FILM+DARC
SILK 5KA/SIN 1KA/SiON 600A	NO DAMAGE AND DEFECT	low k + HARD FILM+DARC
SILK 5KA/PEOX 500A+SIN500A/SiON 600A	NO DAMAGE AND DEFECT	low k + SOFT&HARD FILM+DARC
SILK 5KA/SIN500A+PEOX 500A/SiON 600A	NO DAMAGE AND DEFECT	low k + HARD&SOFT FILM+DARC

FIG. 8